

**ABSTRACT**

The present invention relates to a laser beam inspection apparatus for inspecting a defect on a sample such as semiconductor integrated circuits by using a laser beam. The laser beam inspection apparatus irradiates a laser beam to a sample supplied with a constant current or applied by a constant voltage, and then detects indirectly a change in current or a change in electric field corresponding to a change in the value of resistance developed by scanning the laser beam along the surface of the sample. For example, the change in current is conducted indirectly in such a manner that a magnetic field detecting apparatus detects the change in the magnetic field caused by a current flowing the power supply line provided between a constant voltage source and a sample, and whereby it becomes possible to specify the defective area of the sample based on the detection of the change in the magnetic field.